

Recovery Plan Action Status

Plan Name: Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area

Plan Status: Final

Plan Date: 30-Sep-98

Lead Agency: USFWS

Lead Office: Sacramento Fish And Wildlife Office

(916)

414-6600)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Bay checkerspot butterfly (Euphydryas editha bayensis), Tiburon mariposa lily (Calochortus tiburonensis), Metcalf Canyon jewelflower (Streptanthus albidus ssp. albidus), Pennell's bird's-beak (Cordylanthus tenuis ssp. capillaris), San Mateo woolly sunflower (Eriophyllum latilobum), Coyote ceanothus (Ceanothus ferrisiae), White-rayed pentachaeta (Pentachaeta bellidiflora), Presidio clarkia (Clarkia franciscana), Fountain thistle (Cirsium fontinale var. fontinale), Tiburon paintbrush (Castilleja affinis ssp. neglecta), Marin dwarf-flax (Hesperolinon congestum), Tiburon jewelflower (Streptanthus niger), San Mateo thormint (Acanthomintha obovata ssp. duttonii), Santa Clara Valley dudleya (Dudleya setchellii)	2	1.1	Establish cooperative programs with participants from the public and private sector	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Information and Education	Internal Technical Assistance	Cooperative program established with Stuart Weiss and San Mateo Parks for reintroduction of Bay Checkerspot into Edgewood Park.

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Bay checkerspot butterfly (Euphydryas editha bayensis), Presidio clarkia (Clarkia franciscana)	1	2.1.1	Secure and protect serpentine habitat in the Oakland Hills for multiple species	Not Started			East Bay Regional Park District, U.S. Fish and Wildlife Service, California Department of Fish and Game	Acquisition: Easement	Internal Technical Assistance	

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Presidio clarkia (Clarkia franciscana), Marin dwarf-flax (Hesperolinon congestum)	1	2.1.8	Secure and protect serpentine habitat on the Presidio (San Francisco County) for multiple species	Ongoing Current	FY 1995 - FY 1999		National Park Service, U.S. Fish and Wildlife Service	Management	Internal Field Assistance	2004 Comment: Study of management ongoing. 2011: Introduction of Marin dwarf flax is ongoing at Inspiration Pt on the SF Presidio. Conducted by Presidio Trust and Creekside Center for Earth Observation.
Bay checkerspot butterfly (Euphydryas editha bayensis), Tiburon mariposa lily (Calochortus tiburonensis), Pennell's bird's-beak (Cordylanthus tenuis ssp. capillaris), Coyote ceanothus (Ceanothus ferrisae), Presidio clarkia (Clarkia franciscana), Fountain thistle (Cirsium fontinale var. fontinale), Tiburon paintbrush (Castilleja affinis ssp. neglecta), Santa Clara Valley dudleya (Dudleya setchellii)	2	2.2.28	Secure and protect serpentine habitat Northwest of Healdsburg (Sonoma County) for Arctosaphylos bakeri ssp. Bakeri	Not Started			Sonoma County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Acquisition: Easement	Internal Field Assistance	

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Presidio clarkia (Clarkia franciscana), Marin dwarf-flax (Hesperolinon congestum)	2	4.2.19	Conduct surveys in historic and potential habitat on the Presidio (San Francisco County) for multiple species	Ongoing Current	FY 1995 - FY 1999		National Park Service, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	

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Bay checkerspot butterfly (Euphydryas editha bayensis), Presidio clarkia (Clarkia franciscana)	2	4.2.5	Conduct surveys in historic and potential habitat in the Oakland Hills (Alameda County) for multiple species	Not Started			East Bay Regional Park District, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Population Surveys	Graduate Student	
Presidio clarkia (Clarkia franciscana), Marin dwarf-flax (Hesperolinon congestum)	1	5.15	Conduct necessary research at the Presidio (San Francisco County) for multiple species	Ongoing Current	FY 2007		National Park Service, U.S. Fish and Wildlife Service	Research: Habitat Requirements	Graduate Student	Conducting burn/scrape/tarp studies to benefit Presidio clarkia. Reintroduction efforts for Hesperolinon congestum have begun at Inspiration Pt. on the SF Presidio by Presidio Trust and Creekside Center for Earth Observation.
Presidio clarkia (Clarkia franciscana)	1	5.3	Conduct necessary reaserch at Oakland Hills (Alameda County) for multiple species	Planned	FY 2008		U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Habitat Requirements	Graduate Student	restoration for Clarkia franciscana planned
White-rayed pentachaeta (Pentachaeta bellidiflora), Presidio clarkia (Clarkia franciscana), Fountain thistle (Cirsium fontinale var. fontinale), San Mateo thornmint (Acanthomintha obovata ssp. duttonii)	1	6.1.1	Store the seeds from multiple plant taxa	Ongoing Current	FY 2007		San Francisco Water Department, U.S. Fish and Wildlife Service	Research: Genetics	Species Expert	Some Clarkia franciscana seeds collected by UC Berkeley Botanic Garden. Fountain thistle seed collected from 2008 - 2010 has been stored at Rancho Santa Ana Botanic Garden. Some San Mateo thornmint seed is stored at UC Berkeley botanic garden. White-rayed pentachaeta seed was collected in 2010.